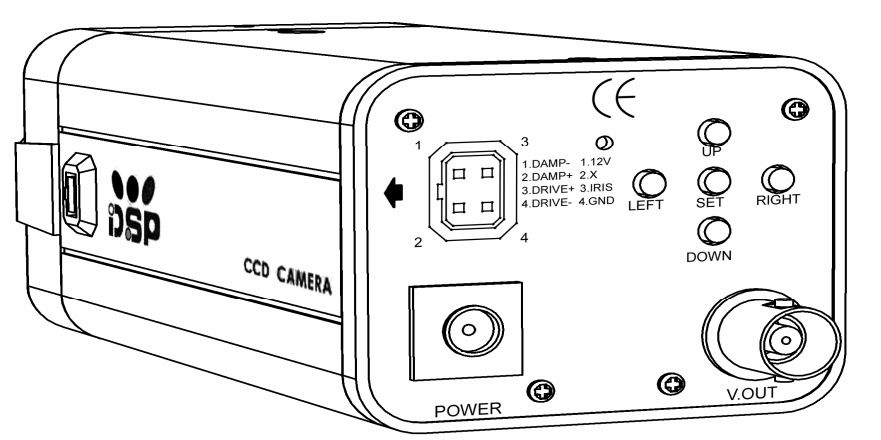
SERVICE MANUAL

1/3” SONY DSP COLOR CCD CAMERA

OVER 650TVL SERIES

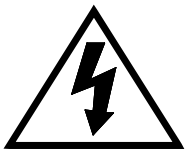


The serial number of this product may be found on the bottom of the unit.
You should note the serial number of this unit in the space provided and retain this instruction as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No. _____

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK), NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is interned to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

▲ Before attempting to connect this product, please read and keep this manual for future use.

Safety Warning

1. Do not open the cover, it may cause electric shock.
   Ask a qualified service person for maintenance when you encounter any problems.
2. Install the camera away from TV, radio transmitter, magnet, electric motor, transformer, audio speakers because the magnetic fields generated from above devices will distort the video image.
3. Place this camera on a solid base. Install the camera away from stoves or other heat generating devices as the high temperature could cause deformation, discoloration or other damages to the camera.

Install the camera at where the temperature range does not exceed -10°C to 50°C (14°F to 122°F)

4. Do not expose and operate the camera in the rain and humid areas.
5. Use only soft dry cloth to clean the camera. Also use lens tissue or cotton tipped applicator and ethanol to clean the CCD sensor and camera lens.
6. When the camera is not in use, put the cover cap on the lens mount. Please do not touch the surface of CCD by bare hand.

Introduction

This OSD series CCD camera introduces a new level of high picture quality through the digital signal processing LSI's technology for advanced video surveillance. It provides the most reliable and accurate color picture in the security industry.

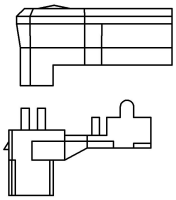
Main Features

- Color camera with high resolution SONY 1/3" EXview HAD CCD II image sensor.
- Employs SONY Enhanced Effio-E DSP chip-set for image control.
- Controlled by OSD (On Screen Display) menu in 7 languages.
- Horizontal resolution of over 650TVL.
- ATR (Adaptive Tone Reproduction).
- 2D-NR (2D Noise Reduction).
- HLC (High Light Cover)
- Supports both C & CS mount lens.

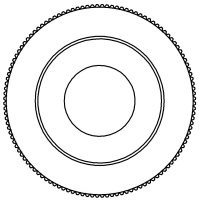
Parts Names & Components

Hex Screwdriver

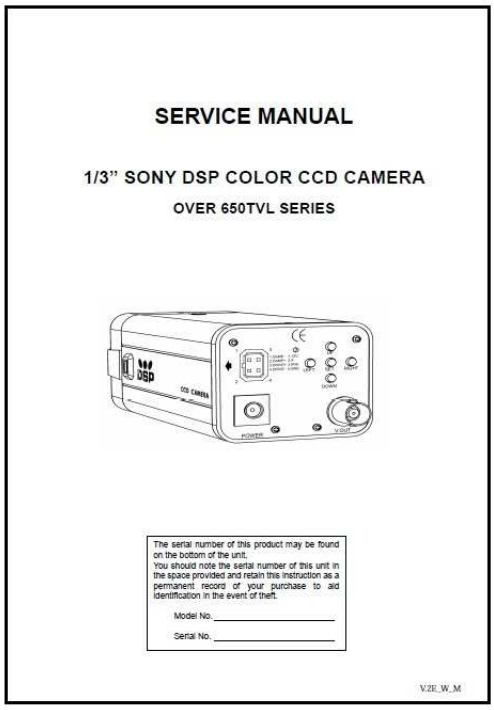
Auto Iris Plug



C-Mount Ring (Option)



Manual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1/3" SONY DSP COLOR CCD CAMERA
OVER 650TVL SERIES
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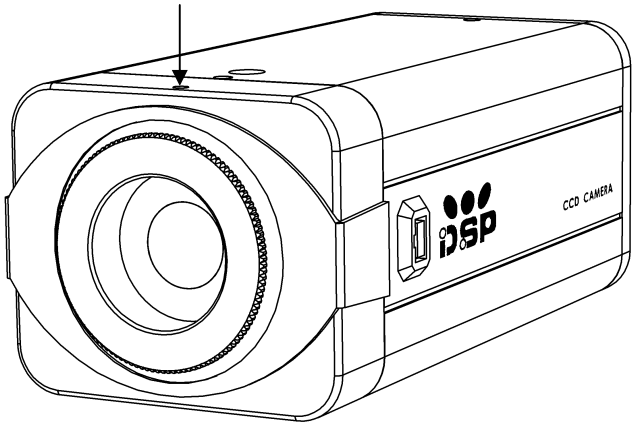
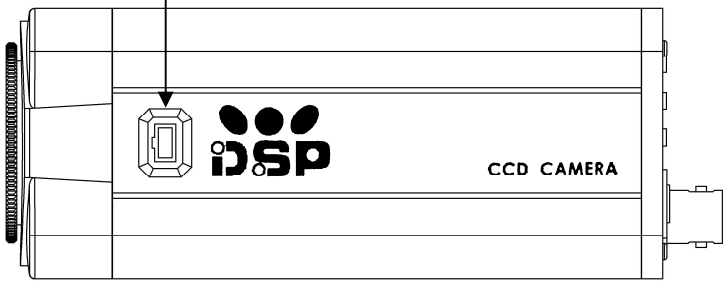
Model No.
Serial No.
V2E_W_M

Hole to fix lens

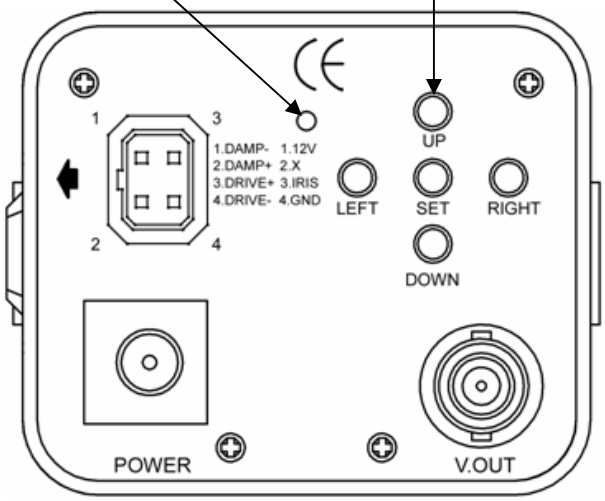


Auto iris connector



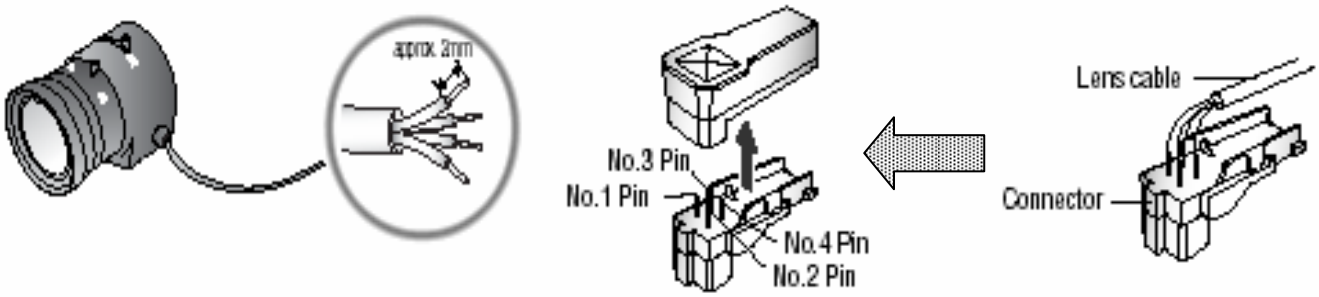
Power LED

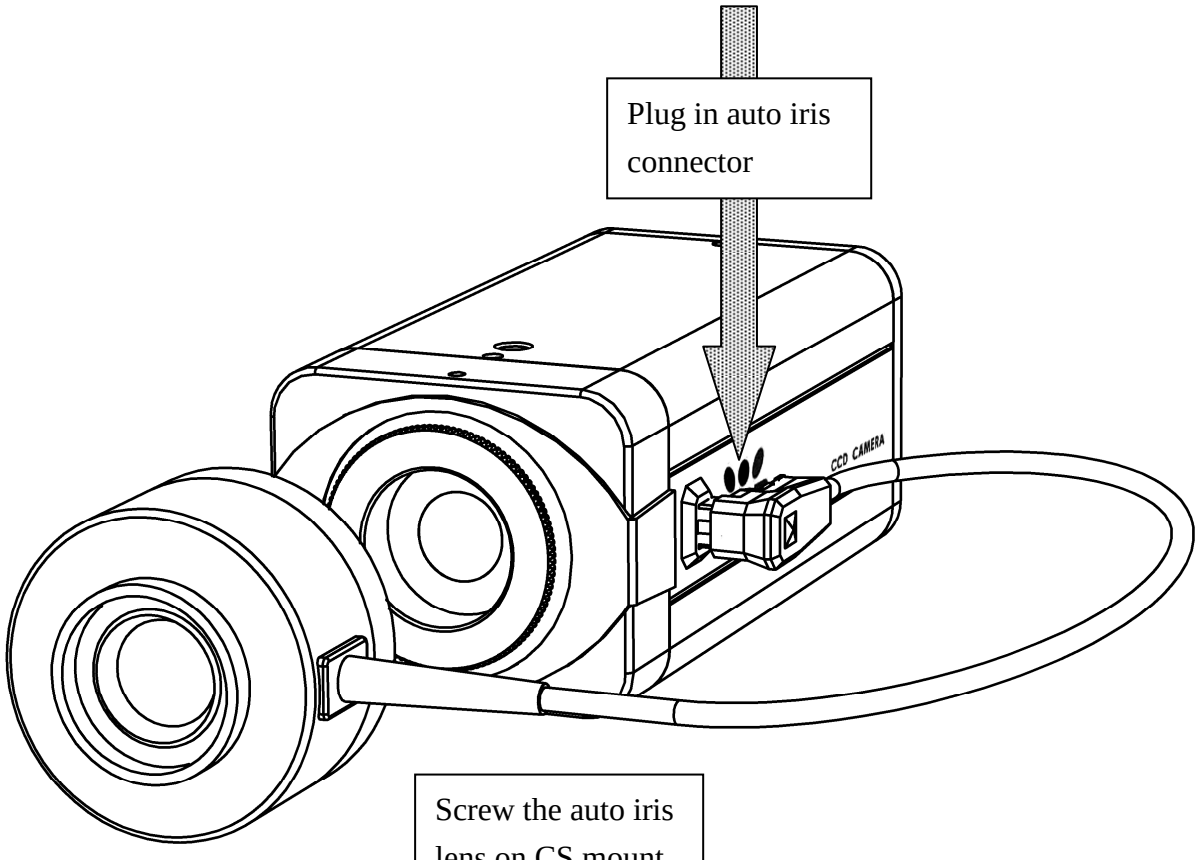
Selection & setting buttons



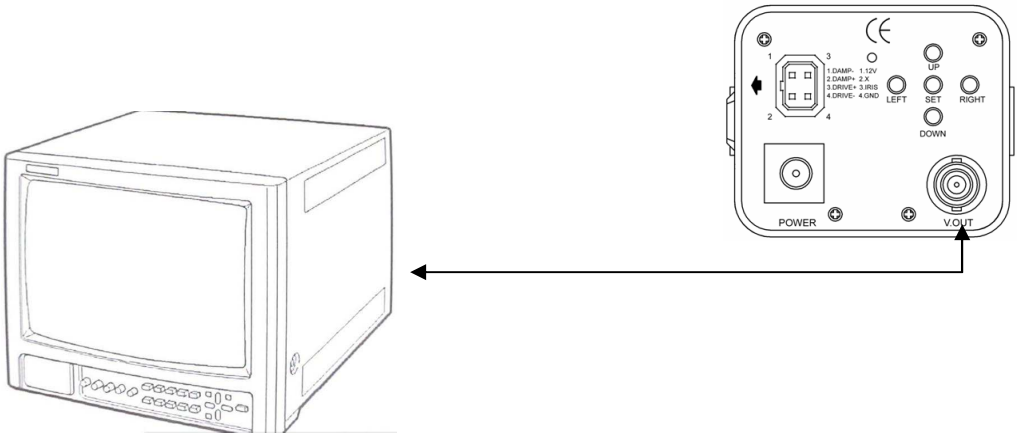
Auto Iris Function

	DC DRIVE
Pin 1 (Red)	Drive -
Pin 2 (N.C)	Drive +
Pin 3 (White)	Damp +
Pin 4 (Black)	Damp -





Installation Instructions



(1) Remove the cap from the lens mount.

(2) Select the C mount lens (with mount ring) or CS mount lens.

(3) Screw and fasten the lens into the lens mount.

(4) Connect the video output wire between monitor and camera through 75ohm type coaxial cable.

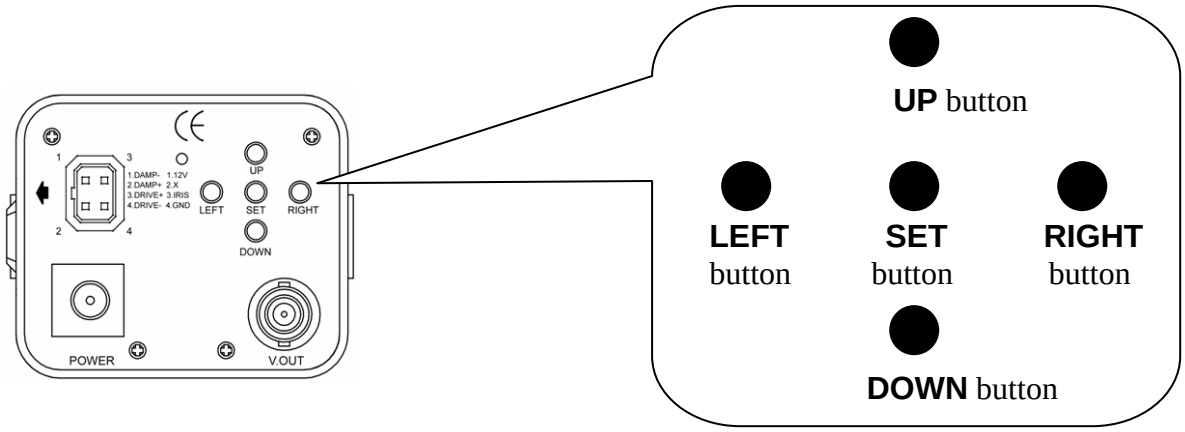
(5) Connect the power cord input.

(6) When monitor shows the picture, please adjust the focus and iris of the lens to obtain the best image according to the following procedures:

- Choose objects at a distance about 5 ~ 10 meter away.
- Loosen the mount lens fixing screw (use hex screwdriver), if necessary.
- Turn the lens and the mount together until image is clear.
- Screw the mount to camera.

(7) Fix camera to the bracket, if necessary.

Switch Definition



SET button

Press to display the menu. In the menu, this button functions as “ENTER”.

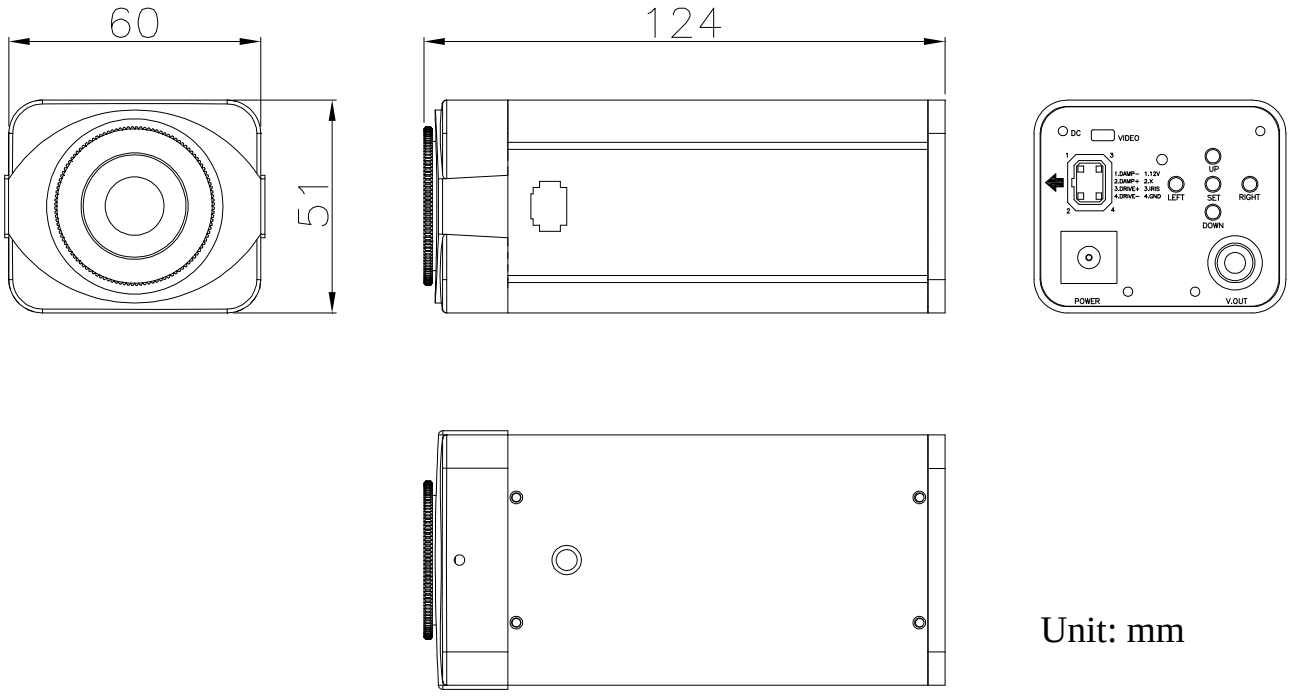
UP & DOWN buttons

Press to select the item of menu.

LEFT & RIGHT buttons

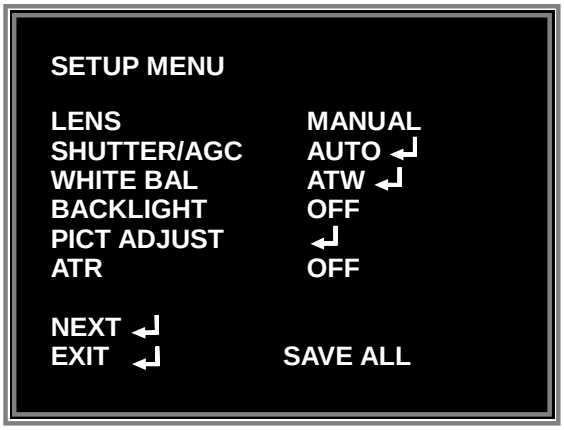
Press to change the item value.

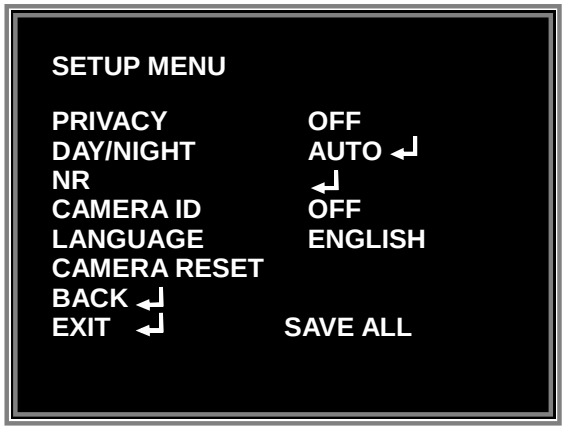
Size Dimension



Unit: mm

Menu Operation





- Press the SET button to display the menu on screen.
- Press the UP or DOWN button to select the item.
- The selected item will be displayed in gray text.
- Press the LEFT or RIGHT button to change mode.
- The ENTER symbol ↵ means there is a sub-menu. Press the SET button to enter to the sub-menu.
- Select the SAVE ALL item and press the SET button to save settings.
- Select the EXIT item and press the SET button to exit the menu.

Advanced Functions

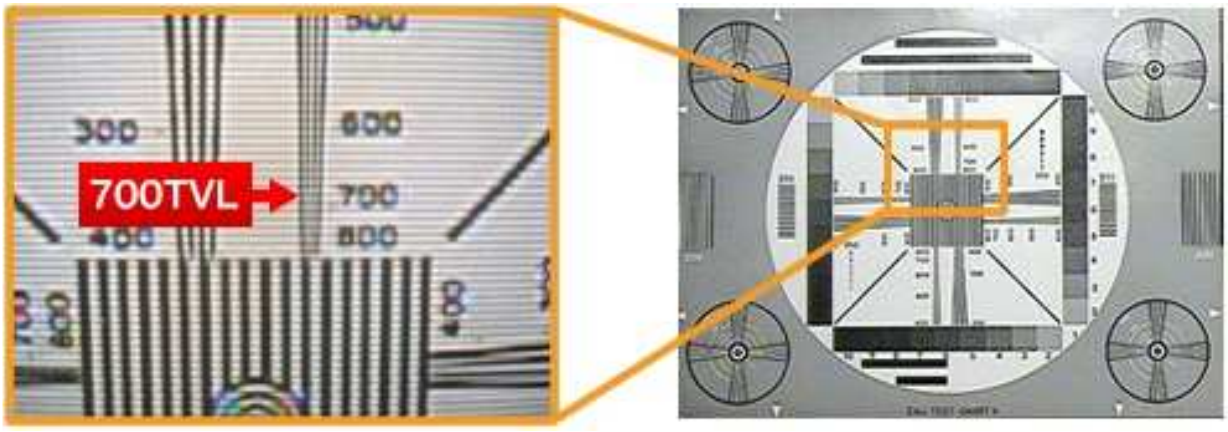
✪ High Color Reproduction

- ➢ Excellent color reproduction.
- ➢ Wide range ATW (1,800°K~10,500°K)

✪ High Resolution

- Higher horizontal resolution of over 650TVL by SONY 1/3” EXview HAD CCD II image sensor.

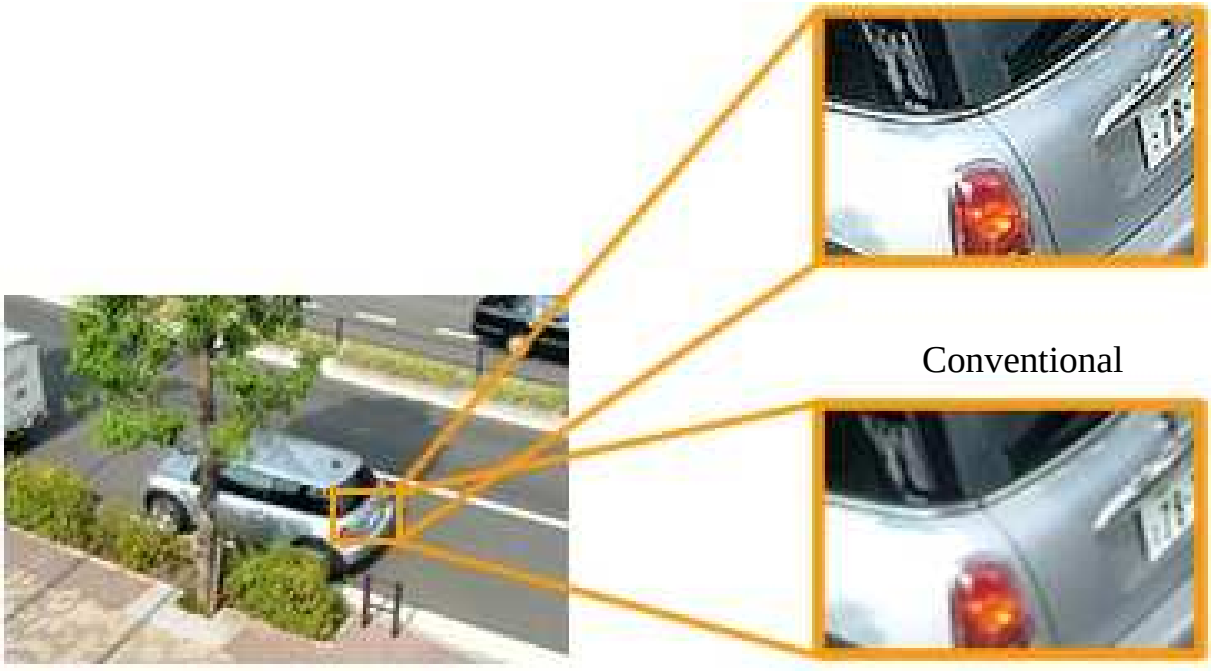
Over 650TVL Series



True captured image　　Resolution test chart

- Finer image after E-Zoom operation

Over 650TVL Series



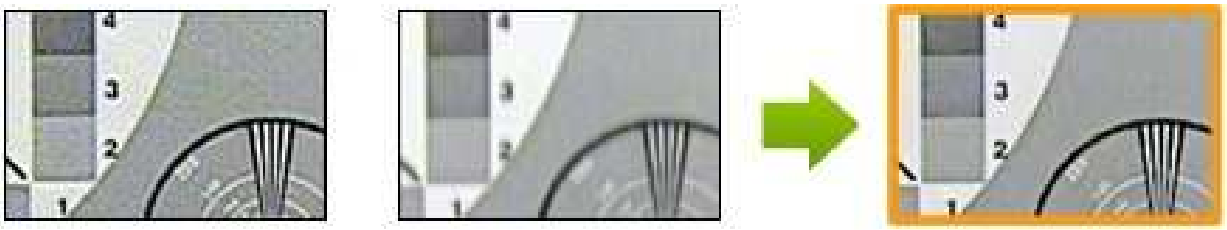
Conventional

Original image

✪ Noise Reduction

- Noise reduction keeping image sharpness

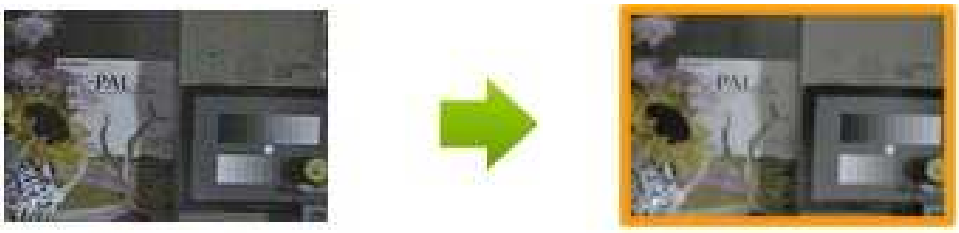
NR OFF | Conventional NR | 2D-NR



Preserved edge

- Excellent NR performance under low light condition

NR OFF | 2D-NR



✪ ATR (Adaptive Tone Reproduction)

- Gradation compensation to improve image contrast.
- Improvement of loss of dark detail and overexposure area.

Conventional
ATR OFF

Over 650TVL Series
ATR ON

Overexposure area improvement

Dark area improvement

Specification

MODEL	OSD WDR	OSD WDR with ICR (True DAY & NIGHT)
IR OPTICAL FILTER	Built-in anti-aliasing IR-cut filter	Built-in anti-aliasing IR-pass (850nm) filter
PICK-UP DEVICE	High Resolution SONY 1/3" EXview HAD CCD II	
EFFECTIVE PICTURE ELEMENTS (H*V)	NTSC: 976*494 PAL: 976*582	
SIGNAL PROCESSOR	DSP (Digital Signal Processor)	
RESOLUTION	Over 650 TV lines (700 TV lines in B/W mode)	
MIN. ILLUMINATION	0.001Lux / F1.2	
S/N RATIO	More than 54 dB	
GAMMA	0.45	
OPERATION	OSD (On Screen Display) menu	
LANGUAGE	7 language selectable: EN (English), FR (Français), DT (Deutsch), ES (Español), POR (Português), RUS (Русcкo), JP (日本語)	
AUTO IRIS	DC-Drive lens	
GAIN CONTROL	4 levels: 0.25 / 0.50 / 0.75 / 1.00	
WHITE BALANCE	1,800°K~10,500°K ATW: SPEED / DELAY CNT / ATW FRAME / ENVIRONMENT--INDOOR / OUTDOOR; PUSH; USER1; USER2; ANTI CR (Anti-Color Rolling); MANUAL; PUSH LOCK	
BLC (BACK LIGHT COMPENSATION)	ON; HLC (High Light Cover); OFF	
PICTURE ADJUSTMENT	MIRROR: ON / OFF; BRIGHTNESS; CONTRAST; SHARPNESS; HUE; GAIN	
ATR (D-WDR)	ON: LUMINANCE--3 levels / CONTRAST--4 levels; OFF	
PRIVACY	ON: AREA--8 zones / COLOR--8 colors / TRANSP--4 levels / MOSAIC; OFF	
DAY & NIGHT	COLOR; B/W: BURST; AUTO: BURST / DELAY CNT / DAY → NIGHT / NIGHT → DAY	
NOISE REDUCTION	2D-NR	
CAMERA ID	52 digits, moveable position	
POWER SUPPLY	DC12V; AC90~260V Switching; DC12V/AC24V Dual Power	
LENS MOUNT	C / CS Mount	
VIDEO OUTPUT	1 Vp-p Composite Video / 75 ohm BNC connector	
POWER CONSUMPTION	3.5W (Max.)	
OPERATING TEMP.	-10°C~50°C (14°F~122°F)	